performing a logical operation on an eliminated pixel row and two of its adjacent pixel

rows in order to preserve an "on" pixel from the eliminated pixel row and transfer it to an "off"

pixel in one of said two adjacent pixel rows.

Remarks

In order to advance this case to allowance and issuance, the specific newly added

references in the detailed description to the Towery et al. patent 5,574 and to Figs. 24, 25 and 30

of the Alfaro patent 6,296,343 have been deleted. However such references were deemed to be

inherent in the original specification, drawings and claims, and are not believed to constitute

"new matter". The amendment makes the matter moot. Since all the other amendments in the

Substitute Specification are fully supported by and consistent with the original specification,

drawings and claims as understood by one skilled in the art, favorable approval of such

Substitute Specification (as presently amended) is earnestly solicited.

Also the Examiner is requested to approve the previously submitted drawing changes

which contain no new matter. Applicants will them submit corrected formal drawings.

The Examiner has rejected claim 2 under Section 112 because of the use of the phrase

"narrowing pattern" . In order to advance this case to allowance and issuance, the word "pattern"

has been deleted and the related term "narrowing process" which appeared in the original

specification (see also the reference to "narrow process" in original Fig. 5, and in Fig. 25 of the

newly added parent Alfaro patent 6,296,343) has been substituted. Favorable reconsideration

and withdrawal of the Section 112 rejection is respectfully requested.

Claims 1, 3 and 4 stand rejected under 35 USC 102(b) as being anticipated by Towery et

al. This rejection is respectfully traversed based on the claim amendments included herein. The

Examiner is urged to enter these amendments which are supported by the previously submitted

arguments filed on 14 February 2002. The limitation of eliminating alternate rows and then

selectively preserving certain pixels from such eliminated rows in order to avoid losing

important parts of an image or figure printed on asymmetrical sub-pixels has now been

incorporated into the claims.

Contrary to the Examiner's characterization, Towery does not incorporate a repeated

pattern of asymmetrical sub-pixels. The confusing reference in column 2, lines 3-10 for a

600/300 pixel grid relates only to the problem of enlarged "drop size", and a clear understanding

of the 600/600 symmetrical pixel grid of Towery is explained in column 2, lines 11-22:

"raster data at a particular resolution (e.g., 300x300 dpi) is scaled up to a higher

resolution (e.g., 600x600 dpi) in such a manner that the expanded data includes a greater

number of dot producing pixels to compensate for a dot size that is larger than the dot

size that is appropriate for the higher resolution ".

This is more fully explained beginning on line 17 of column 6 ("The minimum size of the

600x300 dot is related to the 600 dpi grid spacing S as follows.") See also the section entitled

"Resolution Up Scaling" beginning on line 16, column 12 which states:

> "Resolution expansion in accordance with the invention maps raster data at an original resolution to a higher resolution having twice the resolution in each axis (e.g., 300 dpi to 600 dpi)."

Thereafter "DOUBLE AXIS DOT DEPLETION" (see title) in Towery occurs <u>in both the horizontal rows and the vertical columns in accordance with a horizontal depletion look-up table (see Fig. 9) and a complicated vertical depletion algorithm (see Fig. 10)</u> There is no elimination of alternate rows to create the asymmetrical pixel grid of the present invention. The Examiner is respectfully requested to withdraw the Section 102 rejection based on the Towery Patent.
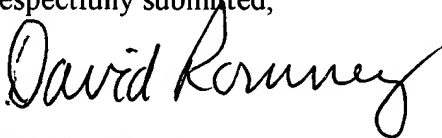
This amendment also adds new dependent claims 5-14 and new independent claim 15 which more fully recite various features for creating a high resolution bitmap, transforming it into a predetermined asymmetrical bitmap having certain rows such as alternate rows eliminated, and then performing a logical operation to determine whether or not to preserve any "on" pixels from the eliminated rows. It is believed that all the newly added dependent claims are separately patentable over the cited art.

Finally this case has been amended to be a continuation-in-part of the previously copending Alfaro EDGE ENHANCEMENT DEPLETION TECHNIQUE Patent No. 6,296,343. A duly executed Supplemental Declaration claiming priority was previously submitted and accepted by the Examiner in the Advisory Action dated July 22, 2002.

In accordance with the Examiner's comments in the Advisory Action, the Substitute Specification and its proposed amendments are attached hereto separate and apart from the claims in order to facilitate their entry.

In view of all the foregoing, the Examiner is earnestly requested to approve entry of the

Substitute Specification and its amendments, which do not include any new matter. Applicants

respectfully seek favorable reconsideration and allowance of all remaining claims 1-15 as newly

added and amended. Please contact the undersigned attorney for a telephone interview in the

event that a further Examiner's Amendment might be needed to place this case in condition for

allowance.

Respectfully submitted,

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Encl.   Addendum showing proposed amendments to Substitute Specification
         Appendix showing clean version of claims after amendments
         Substitute Specification incorporating proposed amendments submitted July 8, 2002